

REMARKS

Claims 7 and 12 are canceled without for purposes of putting the claims in condition for appeal. Claims 8 and 13 are amended to correct the dependencies from now canceled claims.

The arguments presented in the Amendment and Response dated February 4, 2004, are maintained in this response and incorporated by reference.

The Office Action does not establish that claims 1, 3-6, 8-11, and 13-17 are anticipated by US patent number 6,189,141 to Benitez et al. ("Benitez") under 35 USC §102(e). The rejection is traversed because the Office Action does not show that all the limitations of the claims are taught by Benitez. The arguments presented in the Amendment dated February 4, 2004, are supplemented below.

As claims 1 and 15 set forth, entry points of functions are patched with breakpoint instructions, and it is in response to encountering the breakpoint instructions that the substitute, instrumented functions are created. Benitez clearly teaches a different approach for triggering the creation of instrumented functions.

Benitez identifies those blocks desired for instrumentation as those through which control passes at a frequency level greater than or equal to some threshold. These identified "hot" blocks are then translated and instrumented (col. 9, ll. 45-53). Benitez has no apparent patching with breakpoints to trigger the instrumentation of functions.

The Office Action apparently cites Benitez's FIGs. 6A, 6B, and 6C as teaching the claimed patching of function entry points with breakpoint instructions. However, none of these figures appears to show any patching of an entry point. Benitez's figures appear to show that the original entry point instruction is preserved and not patched. Thus, Benitez does not teach the claimed approach of patching entry points with breakpoint instructions and instrumenting in response to the breakpoint instructions.

Furthermore, Benitez's FIG. 8 is a look-up table, which is used to correlate addresses in the original instruction area with addresses in hot block storage area of corresponding translated instructions (col. 26, ll. 1-5). Benitez FIG. 8 is used to determine whether a block has been translated and instrumented and whether control is to be transferred to the instrumented function instead of the original function (col. 11, l. 53 – col. 12, l. 19). As claim 3 further sets forth, transfer of control to an instrumented function is accomplished by replacing the breakpoint instruction at the entry point of the original instruction with a branch to the instrumented function.

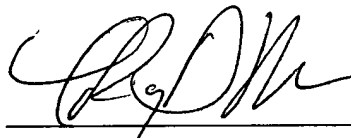
Claim 6 includes further limitations to claim 1 for a particular method by which shared memory is allocated for the instrumented functions. Benitez clearly uses a different approach with the Hot Trace Memory Manger. Whereas the claimed approach involves temporarily replacing a segment of the executable application program with code that allocates the shared memory and restoring the original code after allocating the memory, the description of Benitez's Hot Trace Memory Manager does not suggest any sort of temporary replacement of application code with code to allocate shared memory (col. 34-35). Thus, the Office Action has not shown claim 6 to be anticipated by Benitez.

For the reasons set forth above and those set forth in the previous Amendment, Benitez has not been shown to anticipate any of claims 1, 3-6, 8-11, and 13-17.

Withdrawal of the rejection and reconsideration of the claims are respectfully requested in view of the remarks set forth above.

Respectfully submitted,

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